

The *Curtara sata* Species Group of Hispanola
(Homoptera: Cicadellidae)¹

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ABSTRACT

A review of the *Curtara* (*Curtara*) *sata* species group from Hispanola with descriptions of three new species *carloorum* n. sp., *blancoi* n. sp., and *acroschismata* n. sp.

INTRODUCTION

The genus *Curtara* was originally described in the subfamily Gyponinae (1), and now contains more than 140 species (2, 3). In this paper we described 3 new species related to *sata* DeLong & Freytag: *carloorum* n. sp., *blancoi* n. sp., and *acroschismata* n. sp.

The limited number of specimens available make it difficult to separate species in this group; however, most can be distinguished by differences in the male genitalia. Females are poorly represented in collections and are not associated with species descriptions at this time. Most females show only slight morphological differences, so we have based our species descriptions on the male genitalic characters.

The species in the *sata* group are known only from Hispanola, and are separated from other *Curtara* species by their unusual male genitalic characters, primarily the very large paraphyses on the aedeagus, and wrench-like styles.

The majority of the material used in this study was collected in the Dominican Republic in 1973 and 1979 and sent to the senior author by L. B. O'Brien in exchange for some fulgoroid material. We appreciate her sending this material for our study.

KEY TO THE SATA SPECIES GROUP
(MALES ONLY)

- 1. Styles with a dorsal subapical process (Figs. 2, 6) 2
- 1'. Styles without a dorsal subapical process (Figs. 10 and 14) 3
- 2. Style bent dorsad near the middle (Fig. 2) *sata* DeLong & Freytag
- 2'. Style not bent dorsad near middle (Fig. 6) *carloorum* sp. n.
- 3. Style gradually narrowing to apex (Fig. 10) *acroschismata* sp. n.
- 3'. Style more abruptly narrowed and narrow for over half distance to apex (Fig. 14) *blancoi* sp. n.

Curtara (*Curtara*) *sata* DeLong & Freytag
(Figs. 1-4)

Curtara (*Curtara*) *sata* Delong & Freytag 1976
(type locality—Port-au-Prince, Haiti).

Length of males 7.5 mm, female 8.5 mm. Crown broadly, roundly produced, more than twice as wide between eyes at base as median length.

Color: generally pale brown or buff with a small rounded, dark brown spot on base of crown behind each ocellus. Pronotum with numerous dark-brown punctate spots. Forewings buff, veins margined with dark brown, cross veins on corium and apices of claval veins dark brown. Face dark brown with a horizontal darker brown line in middle.

Male genitalia: plate almost 4 times as long as wide, with thin apex smoothly rounded. Style dorsally curved near middle, with a large, rounded, dorsal projection near apex; apex bent,

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projecting dorsally, slightly bilobed; both forming wrench-like apex to style. Aedeagus with shaft thin, slender to apex, with 2 spine-like apical processes; paraphyses broad, with a small ventrally recurved apical projection and horn-like projection extending along shaft to near base. Pygofer with a narrow dorsally pointed apex.

Female genitalia: seventh sternum with produced, rounded lateral angles, between which posterior margin deeply, roundly excavated; each side of a broad median produced lobe more than half width of segment and extending almost equal to length of lateral angles.

Material seen: Holotype male and allotype female. Note: the male genitalia in the genitalia vial with the holotype are not of this species. The ones in the vial are probably of a common species from Central America. The genitalia are, however, well drawn in Figures 21 and 22 (1). One additional male has been seen from the Dominican Republic, Peravia 2 km N. Nizao, 5 August 1979, L. B. O'Brien, in the University of Kentucky collection.

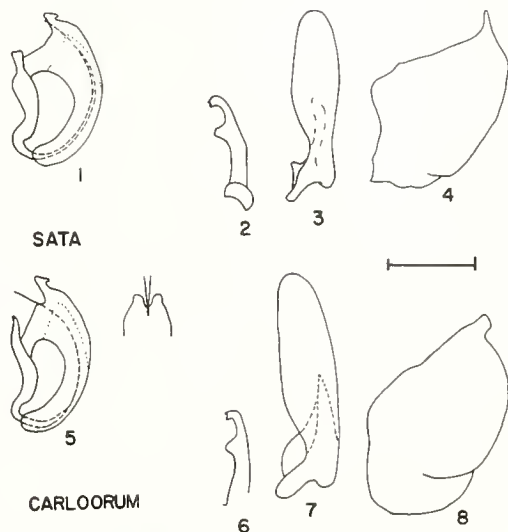
Note: this species is now known from both countries of Hispanola: Haiti and the Dominican Republic. Also, since the genitalia of the holotype has been exchanged or lost by accident, the drawings used in the original description were relied on for the determination of this species.

Curtara (Curtara) carloorum sp. n.
(Figs. 5-8)

Length of males 6.5-7.5 mm, female unknown. Crown broadly, roundly produced, more than twice as wide between the eyes at base as median length.

Color: generally pale brown or buff with a small rounded, dark brown spot on base of crown behind each ocellus. Pronotum with numerous dark-brown punctate spots. Forewings buff, veins margined with dark brown, cross veins on corium and apices of claval veins dark brown. Face dark brown.

Male genitalia: plate long almost 4 times as long as wide, thin, with thickened basal area; apex rounded. Style with large rounded dorsal subapical process, apex roundly bent dorsad with tip bilobed, upper projection sharply pointed, lower projection rounded, both apex and subapical process about same length. Aedeagus similar to that of *sata*; but with thinner



FIGS. 1-4. *Curtara (C.) sata* DeLong & Freytag, 1. lateral view of aedeagus. 2. lateroventral view of style. 3. ventral view of plate. 4. lateral view of pygofer.

FIGS. 5-8. *Curtara (C.) carloorum* sp. n. 5. lateral view of aedeagus with dorsal view of apical end. 6. lateroventral view of style. 7. ventral view of plate. 8. lateral view of pygofer. All drawings to the same scale, line equals 0.5 mm.

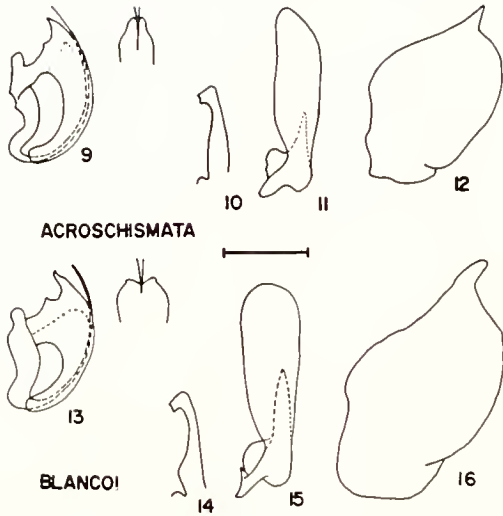
base, shaft with 2 small apical processes; apex of paraphyses with sharp projection pointed ventrally, with long horn-like projection paralleling shaft to near base. Pygofer with truncate caudally pointed apex.

Holotype male: Dominican Republic, Peravia, 13 km NW. Bani, VIII-6-1979, L. B. O'Brien, in the U.S. National Museum. Paratypes: 1 male, Dominican Republic 2 km Nizao, VIII-5-1979, C. W. O'Brien, in the Ohio State University collection; 1 male, same data as holotype in the University of Kentucky collection.

Note: this species is separated from *sata* by the key character, as well as by having a large plate and caudally projecting apical processes on the pygofer. This species is named in honor of Simon E. Carlo, M.D. and his wife Carmen R. Torres-Carlo.

Curtara (Curtara) acroschismata sp. n.
(Figs. 9-12)

Length of males 6.5-7.0 mm, female unknown. Crown broadly, roundly produced, more than twice as wide between eyes at base as median length.



FIGS. 9-12. *Curtara* (*C.*) *acroschismata* sp. n. 9. lateral view of aedeagus with dorsal view of apical end. 10. lateroventral view of style. 11. ventral view of plate. 12. lateral view of pygofer.

FIGS. 13-16. *Curtara* (*C.*) *blancoi* sp. n. 13. lateral view of aedeagus with dorsal view of apical end. 14. lateroventral view of style. 15. ventral view of plate. 16. lateral view of pygofer. All drawings to the same scale, line equals 0.5 mm.

Color: generally pale brown or buff with a small rounded, dark brown spot on base of crown behind each ocellus. Pronotum with numerous dark-brown punctate spots. Forewings buff, veins margined with dark brown, cross veins on corium and apices of claval veins dark brown. Face light brown.

Male genitalia: plate almost 4 times as long as wide, with apex smooth, tapered, rounded to lateral margin. Style with apex enlarged, bent dorsally into a bilobed dorsal projection, not broad at base. Aedeagus base thin, shaft long with 2 long apical processes; apex of paraphyses with an upward pointed projection, also a broad horn-like projection extending along shaft nearly to base. Pygofer with apical ventrally pointed projection.

Holotype male: Dominican Republic, Peravia, 13 km NW. Bani, VIII-6-1979, L. B. O'Brien, in the U.S. National Museum. Paratypes: 2 males, same data as holotype, 1 in the Ohio State University collection and the other in the University of Kentucky collection.

Note: this species can be separated from *sata* by the style lacking the subapical dorsal process and the pygofer having caudally projecting apical processes.

Curtara (*Curtara*) *blancoi* sp. n.
(Figs. 13-16)

Length of males 7.5-8.0 mm, female unknown. Crown broadly, roundly produced, more than twice as wide between eyes at base as median length.

Color: generally pale brown or buff with a small rounded, dark-brown spot on base of crown behind each ocellus. Pronotum with numerous dark-brown punctate spots. Forewings buff, veins margined with dark brown, cross veins on corium and apices of claval veins dark brown. Face light brown.

Male genitalia: plate long, almost 4 times as long as wide, with apex widely rounded, basal area dorsally thickened. Style with enlarged single dorsal projection on apex, truncate, with thickening near base. Aedeagus with thickened base, shaft thin with 2 long apical processes; paraphyses with slight median dorsal process, enlarged horn-like process extending to base of shaft. Pygofer with large apical ventral projection.

Holotype male: Dominican Republic, Dajabon Province 13 km S. Loma de Cabrera, ca. 400 m, V-20-22-1973, Don & Mignon Davis, in the U.S. National Museum. Paratypes: 2 males, same data as holotype, 1 in the Ohio State University collection and the other in the University of Kentucky collection.

Note: This species is similar to *acroschismata*, but differs by the key character as well as by having an enlarged spatulate apex on the plate. It is named in honor of Javier G. Blanco.

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